MODERN RETAILING SUCCESS

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HOLOPHANE COMPANY, Inc.

342 Madison Avenue, New York

WORKS: NEWARK, OHIO

SAN FRANCISCO CHICAGO MILWAUKEE

In Canada:

HOLOPHANE COMPANY, LTD.

385 Yonge Street :-: Toronto, Ont.

MODERN RETAILING SUCCESS

By Better Lighting

—a study of overlooked opportunities

EACH age creates its problems and their solution. Take the business in which you are engaged—retailing—have you ever considered how much alike most retail stores are? That in outside and inside physical appearance most stores are alike. Goods of staple or standard nature carried by one concern are much like that carried by innumerable competitors . . . that even prices are closely bunched together . . . and that, with few exceptions, the calibre of retail salesmanship is about the same wherever you may go.

Yet competition among retail establishments is growing keener, as the number of such outlets increase.

Statistics compiled by the U. S. Census Bureau show that there is one grocery store to every 449 customers; that for every drug store there are but 1,341 customers; and that every butcher has, on the average, but 830 customers from which to draw his entire revenue and income.

Consider these customer-retailer figures carefully. They show the limited field the *average* retailer occupies. They indicate clearly the need to employ every available helpful force to forge past happy-go-lucky competition.

This is the problem of the present standardized age—competition which must result in decreased business for unprogressive merchants and their final elimination by the route of enforced liquidation.

Every disease has its antidote. Every business problem and difficulty has its solution somewhere nearby. Despite keen competition—capable merchants have proved their ability to stand out from the crowd—to draw customers away from dark, neglected stores, to stop a higher percentage of people before the windows and to increase the amount per purchase per customer.

The agent that more progressive types of retailers are employing is *light,* more and better light in the windows and interior of their stores.

Not Merely *Light*, But *Right* Light!

You may carry a hundred lines of quality goods—you may have merchandise of unequalled merit—but there is but one medium which makes it possible for you to bring home the quality of your goods to your customers in a convincing manner. That medium is good *light.*

Light as with other personal contacts, can be given in a garish, blinding, ungracious manner from intense light sources by poorly designed reflecting equipment. Such light chases patronage away from the retail store as surely as would offensive, vulgar language on the part of the salesman.

On the other hand, light can be a refined, diffused, well-conserved force, softly but powerfully falling over displayed merchandise in such ways that the passer-by must stop to look in the store!

Such light stamps a retail establishment with a mark of progressiveness. Night by night hundreds of customers and potential customers have their attention drawn to the well-lighted store by the all-powerful stimulus of good light. Light that makes friends of the pedestrian because it intrigues his attention without blinding him with glare.

Light that makes friends of the customers within the store because the goods can be more surely inspected, making for more satisfactory purchases—and light which pleases the store sales force because sales are made more quickly with less misunderstanding between store and customer and consequently less returned goods.

HOLOPHANE PRISMATIC REFLECTORS AND UNITS are the most economical and effective part of a store lighting system because they bend the light from paths where they would be lost and throw them onto display surfaces where required. Such light never repels, never offends. On the contrary, the innumerable, scientifically moulded prisms of the reflectors redirect and diffuse the light without loss, and make the store stand out in a bold, yet inviting manner, against the gloomy background of less progressive competing concerns.

Summing up,—Holophane Prismatic Reflectors for Store Show-window and Interior Lighting will accomplish the following objects for you:

1—They will act as a business magnet and attract people to the store, or will cause it to be noticed by future customers.

2—They will make stores located in the middle of the block stand out in competition with corner stores.

3—They will help to sell goods—making for quicker and better sales, once the customer has entered the store.

4—They will reveal the true value of merchandise so that the buyer will not later return them as "not as shown."

5—They will overcome distracting sunlight reflections in costly show-windows, thus enhancing the value of the display space.

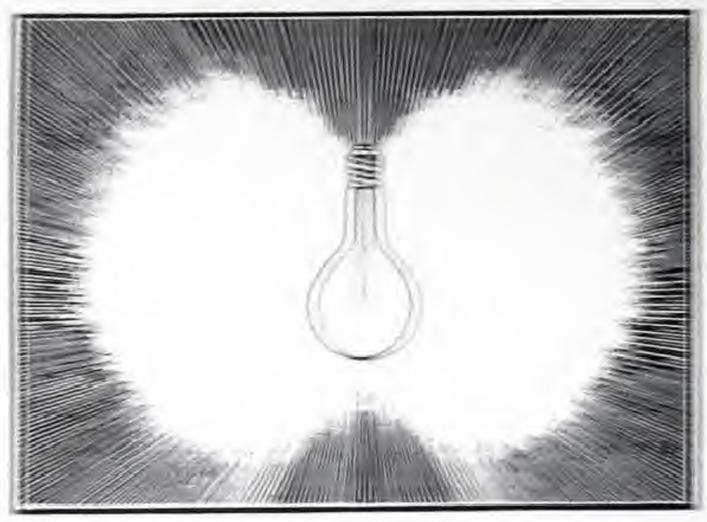
Estimates of losses of both electric current and business caused by exposed lamps in show-windows run into large figures. A change to Holophane Prismatic Equipment would turn these losses into immediate profits for you. Remember that the changes we advocate for progressive retailers do not cost as much money as paying for wasteful, glaring illumination. Poor lighting is often not due to an insufficient supply of light but to lack of knowledge of how to control it.

Consult our Engineering Department freely without cost or obligation for "Planned Lighting" advice and suggestions on your store lighting system.

How To Control Light

IT has been stated in the preceding pages that RIGHT light attracts the passer-by to your show windows and into your store. Now, let us explain what RIGHT light is.

Bare lamps used to light your show window or store distribute the light like this:



This distribution of the light generated by the lamp is wasteful—

1—Because about one-half of the generated light is directed upward at non-useful angles much of which is lost through absorption.

2—Because of the other half (the downward light) a large part is not directed at proper angles to reach the merchandise display.

3—Because when bare lamps are used, too high a percentage of the raw light reaches the customer's eye direct (not the display) resulting in glare and making it next to impossible to see the display clearly.

Bare lamps are seldom used nowadays but many retail merchants use accessories and fixtures for lighting which are little if any better than bare lamps in light-directing characteristics. Opal, or so-called white glass enclosing globes, for example, do not redirect the light to any great extent. They merely diffuse it or scatter it in all directions. These may make the fixture pleasing to look at but do not improve its lighting value—half the light still goes upward from the globe and the downward half is inefficiently distributed for store and window lighting purposes.

The most exact means known to science for controlling the direction of light is the glass prism. When a ray of light enters or leaves a glass prism, it is bent at the surface of the glass at an angle depending on the angle of the prism and the angle of striking the glass something like this:

There are definite physical laws which govern these angles of light ray bending ((refraction)) well known to science and to Holophane lighting specialists.

Careful and precise engineering and manufacture enable Holophane to design prisms which will turn almost all of the light rays back in the opposite direction like this:

This is called total reflection and such prisms are located at proper position with relation to the lamp filament so as to divert rays from non-useful to useful directions. Think of the large saving of money made possible to the retailer by the application of this scientific principle—unique with Holophane reflectors and lighting units.

However, it is not desirable to make this reflection total, so in the design of such reflectors and units, Holophane engineers permit a small portion of the ray to pass through the prism to relieve contrast and provide adequate diffusion.

Thus you can see that by varying the shape of the prism and the relation in position of this prism to the lamp filament, light can be directed in any desired direction. The prism can be made to bend the light ray so that it travels directly backward on itself, or its direction can be changed slightly, or otherwise regulated anywhere between these two extremes.

The bending of the light ray as it passes from air into glass or from glass into air is called REFRACTION. The bending of the light ray directly backward on itself is called REFLECTION. Holophane makes a series of prismatic glass REFLECTOR-REFRACTORS for store lighting and REFLECTORS for show window lighting which utilize these scientific principles, and produce lighting which for efficiency and low cost over the life of the installation is without rival.

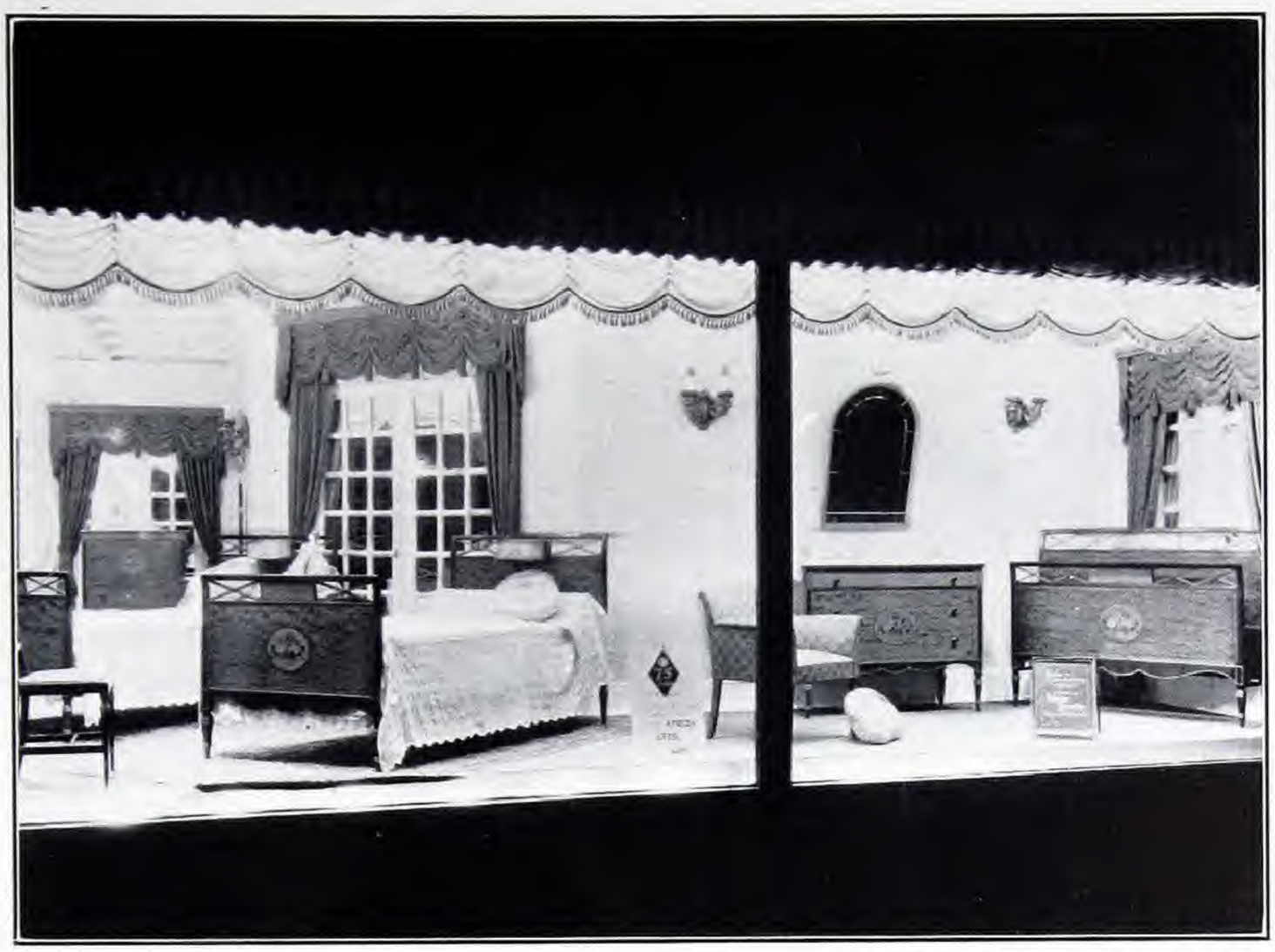
Furthermore, the Holophane engineering principle is, that each lighting installation is deserving of special study and consideration. Holophane engineering specifications are drawn on this basis, so that the equipment is selected for SPECIFIC APPLICATION. This means that lighting installations for your needs will be based on accurate scientific principles from numerous experiments along lines of retailing identical or similar to your particular business.

On the following pages of this booklet are reproduced examples of good lighting in show windows and store interiors. Study them carefully and if the lighting in your place of business does not equal these, you are overlooking an item most important to profit from your investment and labor. We shall be pleased to suggest improvements if you will write to The Holophane Engineering Department.

To serve uniform horizontal and vertical lighting many leading shoe stores have a row of Holophane No. 922 reflectors placed on 12" centers on the transom bar along the street entrance windows and a row of Holophane No. 963 reflectors on 12" centers on the transom bar along the street front. This is a typical good shoe window.

Show windows of the Hudson-Essex Automobile Co., Broadway, New York City. One row of Holophane No. 922 reflectors on 12" centers, are placed behind the valance to illuminate the lower portions of the cars, with another row on 12" centers located on the ceiling to light the bodies of the cars displayed.

The above pictures are unretouched photographs taken under their own illumination only.



Scruggs, Vandevoort & Barney, Department Store of St. Louis, use the Holophane No. 944-*200*-watt window reflectors, because they give a pure, white light, and produce no cut-off patterns on the window back.

A beautiful show window of the Outlet Co. Department Store of Providence, R. I. In this corner window the lamp filaments are shielded by the Holophane No. 922 reflector having the anti-glare plate. 100-watt units on 12″ centers give required high intensity, lighting on models with absence of shadows.

The above pictures are unretouched photographs taken under their own illumination only.

Types of Holophane Window Reflectors

Holophane No. 944

For 150—200 Watt Mazda Lamps Medium and Deep Windows Lamp Filament Totally Shielded.

Holophane No. 922

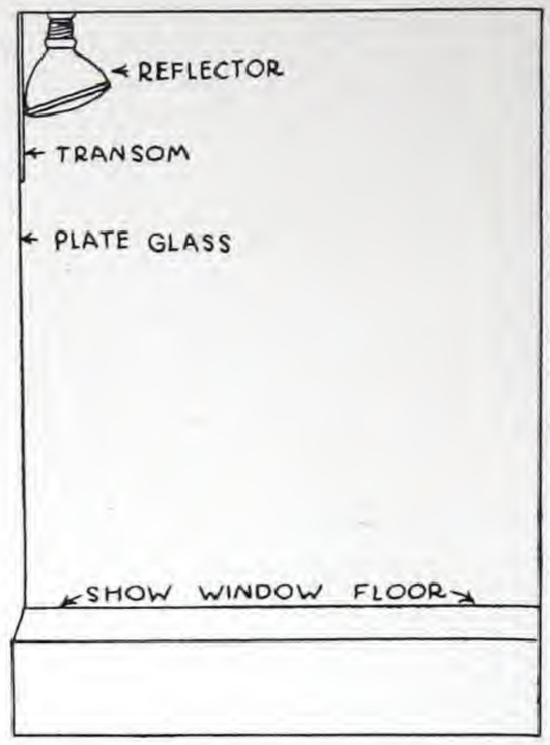
For 100—150 Watt Mazda Lamps Medium and Deep Windows Lamp Filament Shielded at Critical Angles.

Holophane No. 983*

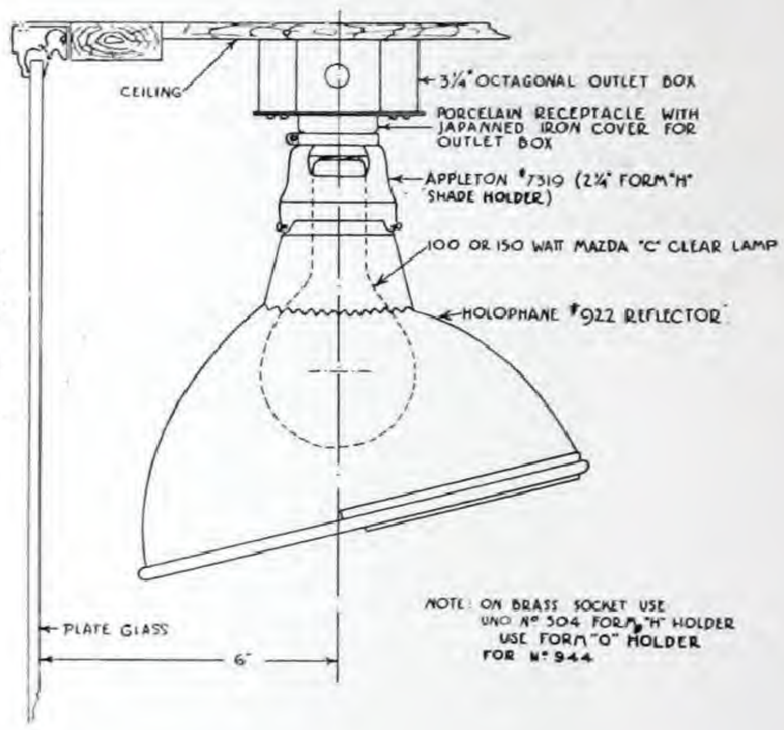
For 100—150 Watt Mazda Lamps Medium and Deep Windows Closed Back Type Filament Not Shielded.

Holophane No. 963

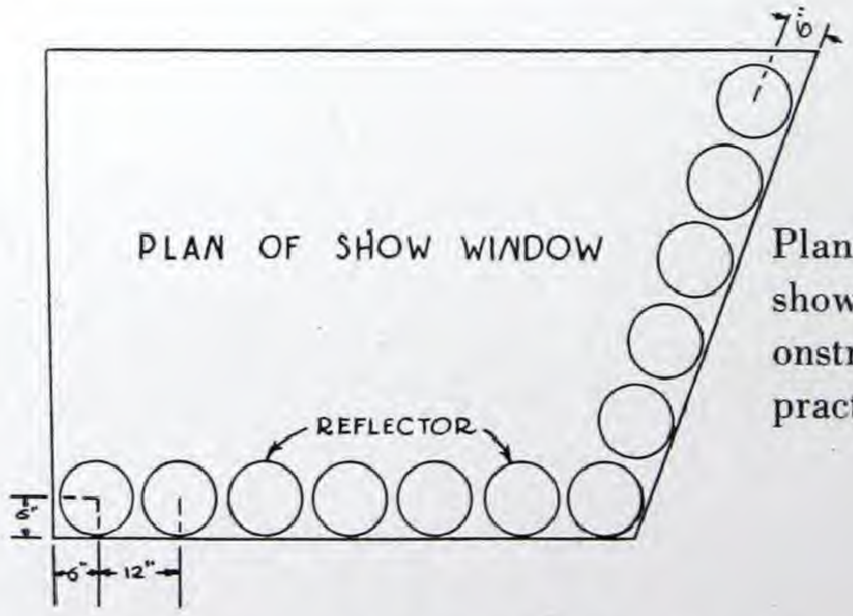
For 100—150 Watt Mazda Lamps Shallow Windows; Not Necessary to Shield Filament with These Conditions.



Elevation showing method of mounting reflectors in show windows.



Detail of proper equipment for mounting Holophane No. 922 Reflector.



Plan of typical show window demonstrating good practice.

*Note:—A smaller size of No. 983 called No. 981 is available for special installations requiring only 50—60 or 75 Watt Mazda Lamps.

Modern Practice In Window Lighting

PROGRESSIVE Merchants recognize the fact that good window lighting directly increases store sales. For this reason they have continuously improved their window lighting until to-day good practice in most cities is fairly well standardized, at least as far as electric current consumption is concerned.

In large cities and on important streets, good practice requires the use of 200-watt Mazda "C" lamps in the most efficient reflectors obtainable on spacings of 12 inches or closely approaching that.

In medium sized cities and on less brilliantly illuminated thoroughfares the standard is somewhat lower, usually 100 or 150-watt Mazda "C" lamps with correct reflectors on similar spacing.

Good window lighting practice is also variable with location and surroundings. That which would represent good lighting on side streets is lost on main streets, due to brighter show windows adjacent.

As one merchant improves his window lighting, his neighbors are far sighted if they keep step or else their window display will lose attraction value by unfavorable comparison.

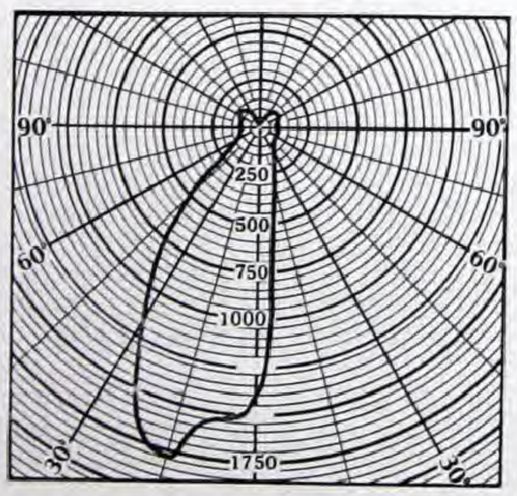
For this reason provide more than "just enough" window lighting capacity for your show window now, so as to take care of future necessary increase in illumination to meet competition. In selecting reflectors, choose the most efficient and best adapted to your particular type of window. Ask the advice of our engineering department without obligation.

Use Holophane No. 944 or 922 in all windows except extremely high or shallow types. Both these reflectors eliminate direct and reflected glare with anti-glare plates which screen the lamp filament and refract the light at most useful angles. In high shallow windows use Holophane No. 963 and in deeper windows of the enclosed type use Holophane No. 983.

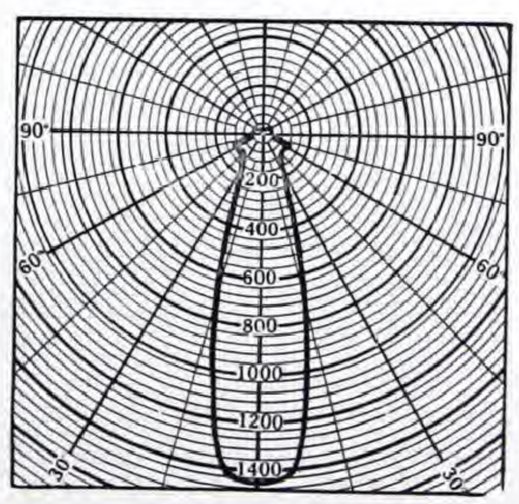
†Instruct your electrician to use shallow or Form O holders with the 100 watt inside frosted lamps, and deep or form H holders on the clear 100 watt and 150 watt lamps.

HOLOPHANE No.	Dimensions in Inches			Correct Lamps Watts
	Diameter	Height	Holder	
*944	9⅞	9¼	2¼-O	200*
†922	9½	7½	2¼-H	100—150
†963	10⅝	5¼	2¼-H	100—150
†983	10⅜	6½	2¼-H	100—150

*Use Socket Extension for 100—150 Watt Lamp.



Photometric curve of No. 944 with 200 watt Mazda Clear Lamp.



Photometric curve of No. 963 with 100 watt Mazda C Lamp.

The small haberdasher store depends largely on profits from sales in addition to the intended purchase. The entire store is a "Show Window." High intensity illumination with good color values helps to sell merchandise. Holophane Reflector-Refractors give more foot candles of white light per dollar spent for current than any other lighting unit.

In this Oriental Rug Department a soft, subdued illumination from Holophane Filterlites helps to carry out the atmosphere of the East. The chief value of the Filterlite here is the uniformity and good color value of the illumination.

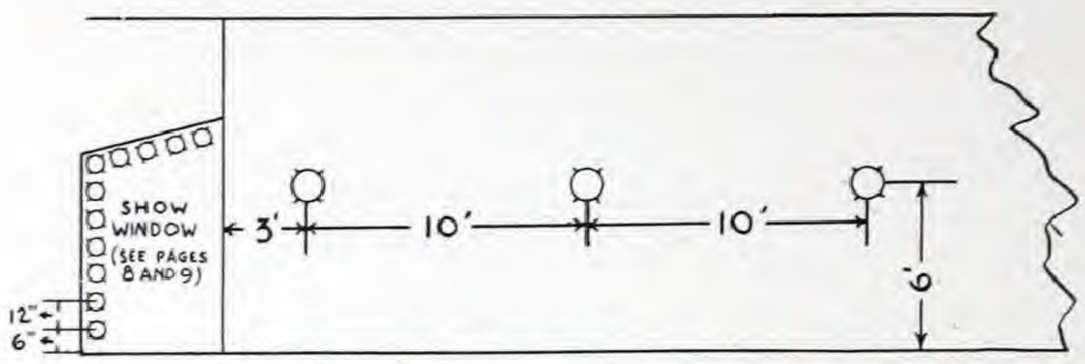
The above pictures are unretouched photographs taken under their own illumination only.

That this Soda Fountain is a money maker is due in no small degree to the brilliant white light given from the Holophane Reflector-Refractors. Contrast the clean, white appearance of this store with what it would be if it were illuminated by dim or yellow light.

Good lighting in a typical furniture department accomplished with Holophane Reflector-Refractors.

The above pictures are unretouched photographs taken under their own illumination only.

The Standard Holophane Filterlite
(Suspension Type)
F100-200-300
Tube Suspension Instead of Chain Supplied Special



Lighting Units for Single Front Store
Diagram Showing Proper Location of Light Fixtures

Ornamental Adaptation of Holophane Filterlite.
Other Fine Period Designs Available

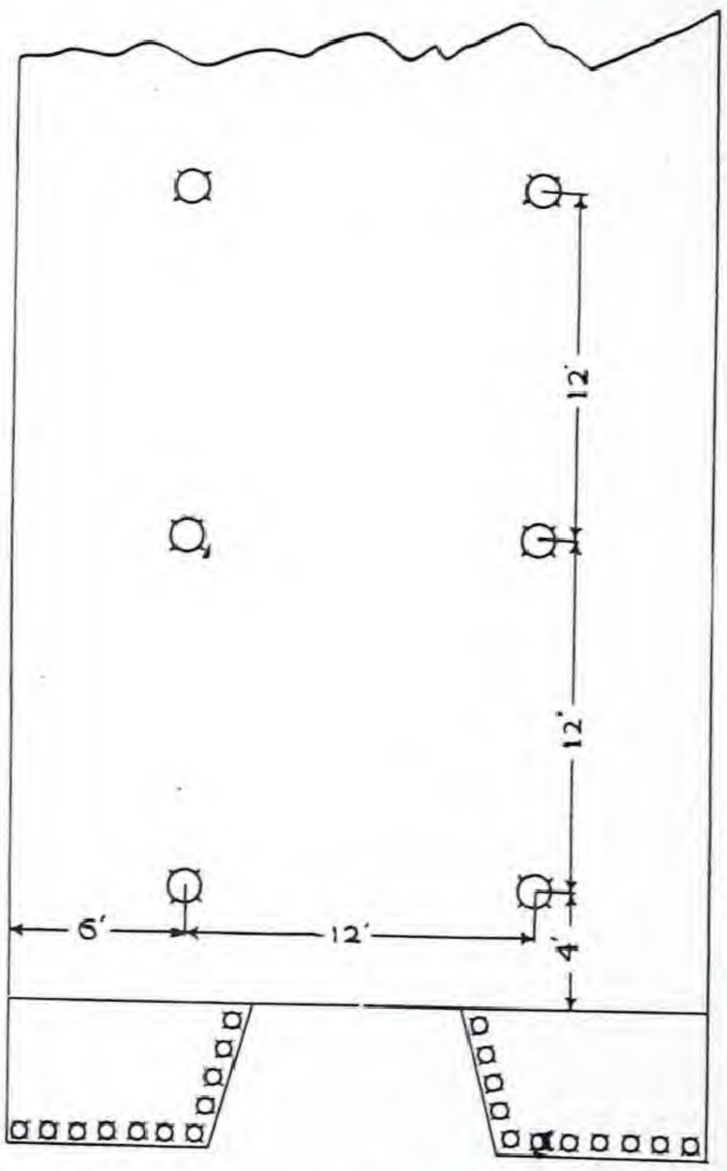


Diagram Showing Proper Location of Lighting Units for Double Front Store

The Standard Holophane Filterlite
(Ceiling Type)
CF-100-200-300

The Standard Holophane Reflector-Refractor
(Ceiling Type)
C-2120-C-2130-C-2140
C-2170-C-2180

Modern Practice In Store Lighting

The majority of stores may obtain excellent illumination by adopting the following suggestions:

Direct Lighting

Direct lighting should always be used where the efficiency of the lighting system is of first importance. Maximum illumination with minimum cost for current demands direct lighting and Holophane. For example, jewelry stores should always use direct lighting and Holophane reflectors are the only type which will give the correct sparkle and reflections from jewels and silverware.

1—Use Holophane Reflector-Refractors with Clear Mazda lamps.

2—Space the units approximately 10 feet apart with the bottom of each unit not less than 10 feet from the floor.

*3—Use approximately two watts per square foot of floor area. Three watts per square foot is to be preferred. Watts are cheaper than clerks or any other form of advertising.

The Standard Holophane
Reflector-Refractor
(Suspension Type)
S-2120 — S-2130 — S-2140 —
S-2170 — S-2180
Tube Suspension Instead
of Chain Supplied Special

Indirect Lighting

When the efficiency of the lighting system is of secondary importance as compared to appearance of the lighted premises and where a soft, perfectly diffused light incapable of giving glare under any conditions is desired use Filterlite for Indirect lighting. Indirect lighting cannot be used unless the ceiling is white, cream or other light color. Indirect lighting should never be employed in jewelry stores.

1—Use Holophane Filterlite with Clear Mazda lamps.

2—Space the units approximately 10 feet apart with the bottom of the unit approximately 30 inches from the ceiling.

3—Use at least three watts per square foot of floor area. Four watts per square foot is to be preferred.

Note—An exception to this rule is the furniture store where one-half the wattage recommended for other stores is desirable.

The Standard Holophane
Filterlite
(Ceiling Type)
CF-100-200-300

**The watts per square foot values recommended above represent good engineering practice even with the most efficient equipment. Beware of salesmen promising satisfaction from less efficient units and with less current consumed.*

SPECIAL LIGHTING

CERTAIN classes of retail stores can afford to install special lighting that will give character and distinction to their premises and make stores so lighted stand out in comparison with competitors.

Department stores, automobile show rooms, jewelry stores, high class clothing and apparel stores, and others can profitably consider special forms of lighting to enhance their attractiveness, particularly in the show windows.

For some time such merchants have been looking for a new, novel and yet refined form of lighting to employ.

Recently, Holophane Engineers made a new contribution to the art of lighting, by developing a series of flat prismatic lenses which are especially adaptable to situations coming within the above description. These lenses, available in different sizes for a wide range of lamps, are used as the part of a complete concealed lighting system. The lenses are so designed as to give almost any required distribution of the light by either changing the type of lens or the focal position of the lamp.

Instead of using a row of reflectors in the window, a strip of the window ceiling near the plate glass front is glazed with square prismatic collecting and refracting lenses. The lamps are placed behind these lenses so that there are no unsightly reflectors visible nor any bare lamp filaments in view to distract the attention from the merchandise display.

This new form of lighting is past the experimental stage as there are upwards of one hundred installations already completed and all giving complete satisfaction.

Each job, however, requires special engineering study so that the system can be designed for the particular requirement and construction of that individual job.

For this reason, the Holophane Company is not publishing as yet complete engineering data, but suggests that merchants interested in such a proposition send their building plans to our Engineering Department for lighting recommendations of this character which will be cheerfully made without obligation.

The outstanding advantages of these flush to-the-ceiling lens systems, particularly for window lighting are as follows:

1—Almost perfect diffusion
2—Improved appearance of the display
3—High intensity lighting without glare
4—Reduction of heat in the window
5—Extreme flexibility of light control.

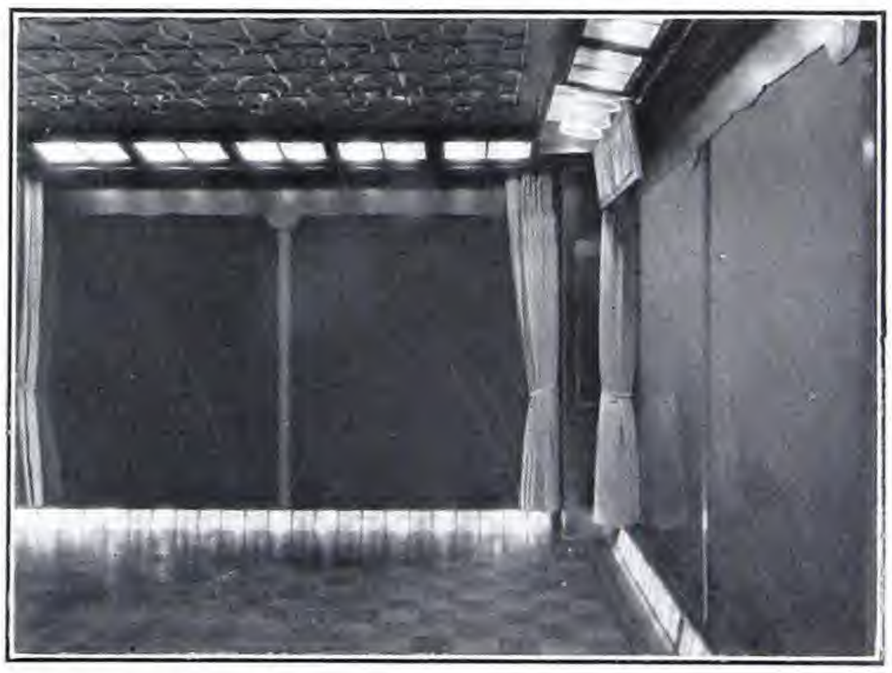
The lens system is particularly recommended for automobile show windows and others of the open back type where the show window and show room are practically one area.

On the opposite page are shown four views of installations already in operation.

The Ohio Buick Company, Cleveland, Ohio, light their show window with Holophane prismatic lenses completely eliminating glare and glare reflected from the Duco finished cars.

The C. T. Sherer Company department store window, Worcester, Mass., lighted with Holophane prismatic lenses.

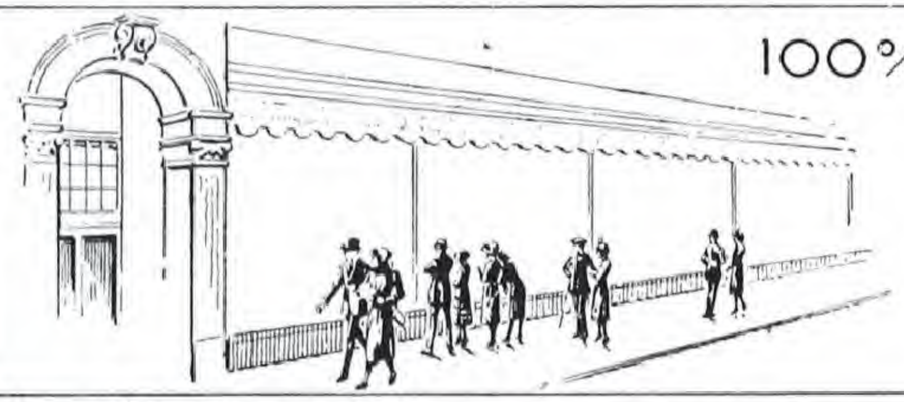
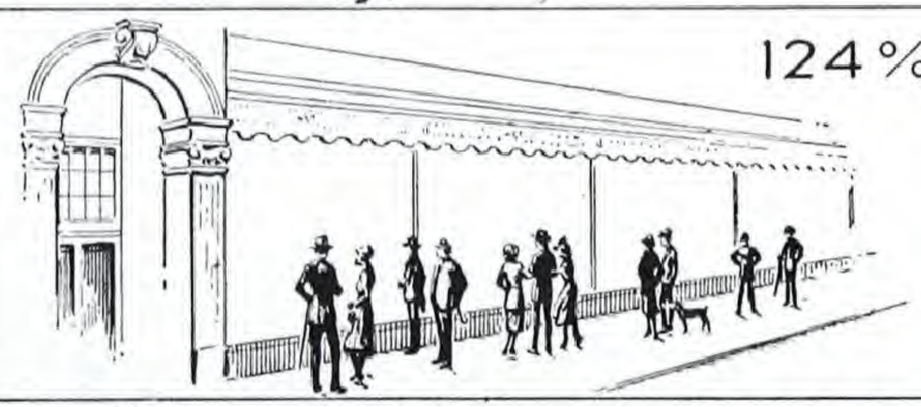
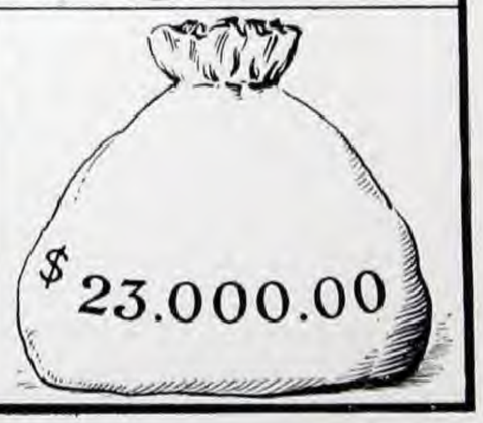
Jackson & Moyer Company, Haberdashers of Philadelphia, Pa., have the above attractive window lighted with a Holophane lens system.



The above picture shows the construction and appearance of a Holophane lens system photographed from inside the C. T. Sherer Co. window.

Value Of Increased Lighting In Show Windows

From Tests in 20-Foot Windows of a Well Known Department Store

LEVEL OF ILLUMINATION	ATTRACTIVENESS	COST OF WINDOW LIGHTING LAMPS & CURRENT PER YEAR 2000 HOURS	PROFIT FROM LIGHTED WINDOWS PER YEAR 2000 HOURS ★
15 FOOT CANDLES	 100%	$70.00 	 $16.000.00
40 FOOT CANDLES	 124%	$160.00 	 $20.000.00
100 FOOT CANDLES	 142%	$400.00 	 $23.000.00

The above chart illustrates the increased retail business which has resulted from improved window lighting as proved by a test recently made in Cleveland. During the test the drawing power of the intensity of light used in the display window was tested at 15, 40 and 100-foot candles. It was definitely shown that by raising the intensity of light from 15 to 40 foot-candles, 244 people, or 44 people more per hour were stopped, representing a gain in drawing power of 22%. By raising the intensity of the light from 40 foot-candles to 100 foot-candles, 300 people were stopped per hour, a total gain of 84 people—or a 42% gain in the capacity of the window to make people stop and look at the goods displayed. This test shows why well lighted retail stores, even those located in the middle of a business block, can successfully compete with corner stores. Better business flourishes under good lighting.

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